

1. (Cancelled)

2. (Previously Presented) A torque sensor for calibrating screwing tools, comprising an inner body defining an axis with respect to which a torque is to be measured and having seat means for engagement of a screwing tool to be calibrated, and an outer annular body held stationary, said outer annular body being coaxial with said inner body and being connected with said inner body through radial webs of a first type and through radial webs of a second type, said first type webs having relatively large width circumferentially but having relatively small axial dimensions, and forming a first cross of four first type webs angularly spaced by 90° about said axis, and said second type webs being relatively narrow circumferentially but having relatively large axial dimensions and forming a second cross of four second type webs angularly spaced by 90° about said axis, said second cross being angularly offset relative to said first cross by 45° , and further comprising torsion measuring means attached to said first type webs for measuring torsional deformation due to torques exerted on said inner body, said torsion measuring means comprising measuring elements on all four first type webs, said measuring elements being interconnected to provide a measured value indicative of the torque exerted on said inner body about said axis while substantially compensating for disturbing forces.

3. (Previously Presented) A torque sensor as claimed in claim 2, wherein the inner body has a moment of inertia which is so small that, when calibrating dynamically working screwing tools, the inertial forces caused by the inertia of the inner body are negligible as compared to the forces acting on the first type webs.

4. (Original) A torque sensor as claimed in claim 3, wherein the inner body has radial dimensions which are small as compared to the radial dimensions of the annular body.

5. (Original) A torque sensor as claimed in claim 3, wherein said inner body consists of a material which has a low specific weight as compared with the material of the annular body.

6. (Previously Presented) A torque sensor as claimed in claim 3, wherein said inner body has regularly arranged apertures for reducing the moment of inertia.

7. (Currently Amended) A torque sensor as claimed in claim 4 ~~2~~, wherein said ~~central~~ seat means of said inner body comprise a hub having a square aperture with side faces and edges.

8. (Original) A torque sensor as claimed in claim 7, wherein said side faces of said square aperture are aligned with said first type webs, and said edges of said square aperture are aligned with said second type webs.

9. (Previously Presented) A torque sensor for calibrating screwing tools, comprising an inner body defining an axis with respect to which a torque is to be measured and having seat means for engagement of a screwing tool to be calibrated, and an outer annular body held stationary, said outer annular body being coaxial with said inner body and being connected with said inner body through radial webs of a first type and through radial webs of a second type, said first type webs having relatively large width circumferentially but having relatively small axial dimensions, said second type webs being relatively narrow circumferentially but having relatively large axial dimensions, and said inner body consisting of a material which has a low specific weight as compared with the material of the annular body whereby the inner body has a moment of inertia which is so small that, when calibrating dynamically working screwing tools, the inertial forces caused by the inertia of the inner body are negligible as compared to the forces

acting on the first type webs, and further comprising torsion measuring means attached to said first type webs for measuring torsional deformation due to torques exerted on said inner body.

10. (Previously Presented) A torque sensor as claimed in claim 9, wherein the inner body has radial dimensions which are small as compared to the radial dimensions of the annular body.

11. (Previously Presented) A torque sensor as claimed in claim 9, wherein said inner body has regularly arranged apertures for reducing the moment of inertia.

12. (Previously Presented) A torque sensor as claimed in claim 9, wherein said central seat means of said inner body comprise a hub having a square aperture with side faces and edges.

13. (Previously Presented) A torque sensor as claimed in claim 12, wherein said side faces of said square aperture are aligned with said first type webs, and said edges of said square aperture are aligned with said second type webs.